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REMARKS ON FRACTURES OF THE SKULL*

BY CHARLES W. DULLES, M. D.

I desire to call the attention of the Academy of Surgery to some points in regard to fractures of the skull which I believe do not receive in this country, or anywhere except in Germany and Russia, the attention which they deserve. I mean the mechanism of indirect fractures. This has much more than a purely scientific interest; it may be an important factor in our application of the art of surgery as well. It is now eight years since I read before the College of Physicians (Trans. Coll. of Phys. of Philadelphia, 1886) a paper, to the preparation of which I had devoted a great deal of time and labor, and in which was expounded the theory known as the "bursting theory," of indirect fractures. This paper has—so far as I know—never been noticed in any way on this side of the Atlantic. I refer to it, because I would like to make it the authority for certain statements which I make here and which are there supported by argument and demonstrations.

The bursting theory of indirect fractures of the skull may be invoked to clear up many difficulties of diagnosis in fractures of the skull, and I believe that it should invariably be invoked before conclusions of a medico-legal character are reached.

I have seen more than one case under the care of the Coroner of Philadelphia in which I found a fracture precisely where I thought it should be, even after the Coroner's

physician had examined the skull and concluded that there was no fracture at all. I have also seen cases in the living in which the application of the "bursting theory" has furnished very instructive suggestions in regard to the diagnosis of accidents to the skull, making them much clearer and the treatment much more satisfactory. An appreciation of the bursting theory also often clears up the perplexities of cases in which, without detectable fracture of the skull, there is found a rupture of bloodvessels and hemorrhage within the cavity of the skull, either extra or intra-dural.

Briefly stated, the bursting theory may be outlined as follows: The skull is a hollow case, of a somewhat ellipsoid form, the wall of which is formed of bone, varying in thickness and density in different parts, and of a peculiar conformation, and with peculiar contents and coverings. When such a case is struck, or when it strikes upon a resisting body, it is compressed in a direction in the line of the force and counter-pressure (which latter may depend wholly on vis inertiae). The result of this compression is to shorten the prime diameter, and of necessity to lengthen the transverse diameters. As illustrating the first phase of action, Sir Charles Bell, in the early part of this century, made an experiment (which is easy to repeat), in which he placed movable balls inside and outside of a hoop and touching it, and found that a blow upon any part of the hoop caused the ball immediately under it and that immediately opposite it to move toward the centre of the hoop, while those distant ninety degrees from it moved away from the hoop.

*Read before the Academy of Surgery, June 3, 1895.

If this experiment were to be modified, so as to meet the conditions of a hollow sphere instead of a circle, we might place half of a hollow sphere upon a resisting surface, and striking it on the upper pole would find that this pole would approach the resisting surface and the circumference would be elongated and describe a larger circle. In such an experiment, made upon an elastic substance, the compression and elongation would be followed by a corresponding expansion and shortening. The first compression and elongation spoken of are of the chief importance in indirect fractures of the skull, and in them we have (to use a simple illustration) conditions similar to those when an umbrella is raised. In the latter case it is plainly seen what takes place, namely, that, as the pole is brought nearer to the equator, this is elongated and the space between the meridians (the ribs of the umbrella) is increased. This increase being expected and provided for by material which lies in folds between the meridians, this is simply spread out. In a body with no such provision, however, any force that would bring its poles near together, and consequently lengthen its equatorial circumference and separate its meridians, would at once set up a struggle between the force applied and the cohesion of the particles lying along and between the meridians. If the power of cohesion were sufficient, there would be no disruption; if, however, it were not, then there would be a split beginning at some point near the equator, where the strain is most severe, and passing in opposite directions toward the poles. This is what would take place in a perfectly symmetrical homogeneous elastic body. What naturally takes place in the skull is shown by observation and experiment to be this, modified by the peculiar structure, formation, contents and surroundings of the skull.

This is what is known as the "bursting theory," and its bearing upon practice will be appreciated, I think, by those who apply it. It provides the surgeon—not with certainty of diagnosis, but with suggestions of

probability, which will increase his chances of making a reliable diagnosis. The inferences from it, which are of a practical nature, are as follows: Force applied to the skull, of sufficient violence and rapidity of action, will produce what is known as a direct fracture—a fracture at a point where the violence was applied. In these cases the rapidity of action is a very important element, as it is a well-known fact in physics that time enables cohesion to resist a disruptive violence, which, if instantaneously applied, would at once overcome cohesion. Force less sudden and less extreme applied to the skull will bring actively into play the elastic properties of the skull, and if violent enough will lead to a fissure at some distance from the point at which the violence was applied, and usually in a line meridional to the point where the force was applied. My study of a large number of accidental and experimental fissures indicates that blows upon the forehead directly in the middle line are likely to produce a fissure of the skull, passing from front to back in or near the middle line, and more frequently at the base of the skull than in the vault. Blows applied to the forehead on one side or the other are likely to produce fissures in a line with the direction of the force, and crossing the skull to the other side. Such fissures occur almost always in the base, and they usually terminate in the middle cerebral fossa, though they sometimes cross the foramen magnum and traverse the cerebellar and posterior cerebral fossae. Force applied to the middle of the occiput usually produces a fissure, passing in the direction of the force around the occiput, laterally or perpendicularly, sometimes separating the lamboid suture, sometimes splitting the lower part of the occipital bone and going into the foramen magnum, and sometimes crossing the petrous bone, breaking it transversely and passing into the foramen lacerum medius. Such fissures may pass straight down to the foramen magnum and (crossing over) split the body of the sphenoid bone and extend into the ethmoid or frontal bone. (Such fissures furnish typi-

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cal illustrations of the correctness of the bursting theory). Force applied to the side of the head, in almost all cases, produces a fissure passing through the base of the skull in the middle cerebral fossa. Such a fissure sometimes traverses this fossa completely and may pass completely through the base and vault, dividing the skull into two halves. In some cases the fissure passes directly through the coronal suture; in many cases it splits the petrous bone longitudinally. In some cases force applied to the side of the head causes a splitting off of the posterior clinoid processes—an occurrence that is explicable only upon the supposition that the tentorium cerebelli, which is attached here and to the occipital bone, is put upon the stretch when the skull is elongated antero-posteriorly and drags these portions from the body of the sphenoid. Force applied to the side of the head frequently produces fissures passing around the side of the head, through the parietal and squamous bones, and often passing to the basisphenoid, but rarely dividing it completely. In some cases force applied directly to the vertex produces a fissure in the long axis of the skull. Such a fissure may be of very great extent and may even divide a skull into two symmetrical halves. Longitudinal (antero-posterior) fissures occur more frequently in the base of the skull than in the vault.

An interesting form of violence, applied to the skull, is that due to falls upon the feet, where the momentum of the body is suddenly arrested by the resistance of the earth. In such a case a ring of bone surrounding the condyles may be driven into the skull, or—as observation and experiment show—the process of the sphenoid bearing the posterior clinoid processes may be broken off by the pull of the tentorium cerebelli, when momentum and resistance lessen the diameter from condyles to vertex and lengthen the diameter from occiput to sinciput.

I state my views in reference to this matter somewhat authoritatively, because I have studied it pretty thoroughly for ten years, and because

these views agree, I think, with those of the most careful students of the subject in recent years. They have also been confirmed by a considerable number of personal observations. They have an important bearing upon surgical practice and also upon medico-legal questions. For example, in 1886 I saw a Coroner's case of a person who had fallen down some stairs, striking the head near the external occipital protuberance; in which, after the skull had been opened and the brain removed, no fracture was found by the Coroner's physician, and none would have been found had he not been asked to remove the dura and to look along a line suggested by an application of the bursting theory, where a fissure was found passing down through the occipital bone and into the jugular foramen.

My investigations show in over 90 per cent. of all cases fissures that correspond to what might be expected from an application of the principles of the "bursting theory." This result seems to establish the theory by the best test that we can apply to it; so that it appears to rest upon a very firm tripod of reasoning, experiment and clinical observation.

I do not overlook the fact that there are fractures that cannot be accounted for by it. There are some fractures in which the force applied is so great and acts in such a manner that the skull is crushed so as to hide any evidence of the play of its elastic properties, the fracture being of a comminuted sort; and there are others in which one segment of the skull seems to be shoved over the other by forces of pressure and counter-pressure which require some study before their mode of operation can be understood. For this reason it is of importance to learn in every case the position which the skull has held in relation to the spinal column or to any body capable of exerting counter-pressure. No less is it important not to overlook the counter-pressure that is caused by the simple vis inertiae of the skull and its contents.

But it would be impossible to speak of all the influences that may modify the strict application of any

one theory in regard to fractures of the skull; and I must close with the expression of my own conviction that the supreme law governing the production of indirect fractures is that which depends upon the fact that the skull is practically a hollow elastic case approximately oval in shape, and which may be briefly formulated as follows: When a sufficient force is applied to any curvilinear part of the skull, if this part do not give way immediately, the axis of the skull lying in the same line as that of the applied force is shortened, and all the axes lying in planes at right angles to this line are correspondingly lengthened, with a proportional lengthening of their circumferences and separation of their meridians, so that the direct depressing force is converted into an indirect disruptive force acting at right angles to the direction of the former. The effect is to produce a fissure or fissures, which will have a general meridional direction.

The application of this law is subject to certain modifications due to the anatomical and architectonic peculiarities of the skull, its coverings and contents, and to certain exceptions due to the amount and velocity of the force applied as well as to the coming into play of peculiar counter-forces.

CROUPOUS PNEUMONIA.*

The case illustrates a clinical type with which one should become perfectly familiar, as it is unusually typical of the disease with which it is connected—so much so that, after seeing a few such specimens, one will often be able to pick out a case without making a physical examination.

The patient is 25 years old, a Swede, by occupation a laborer; unmarried. The family history is negative except that his father died of consumption. The patient has no alcoholic nor specific history, and he was strong till three years ago when he had the grippe, which confined him to bed for a week. Eight days

ago he took cold, but did not pay much attention to it and continued to work throughout the rest of the week, that is from Tuesday to Saturday inclusive. Sunday morning he got up at half-past eight, but returned to bed at eleven. Asking him why he did not remain up, he says: "Sunday, I freeze." This is plain; he had a chill. On further questioning we learn that he did not shake with cold, but that he had a sense of freezing about the lower part of the chest most of the time from Tuesday till Sunday. On Sunday afternoon he developed a sharp pain in the right side, and that same evening he was admitted to the hospital with a pulse of 120, temperature of 104 degrees, and his respirations were 38 to the minute.

Commonly, at this stage of the disease, the pain is agonizing, the patient is unable to take a deep breath and the respiration being superficial, is necessarily rapid. The respiration is, generally speaking, more rapid in this disease than in any other, being often half or more than half as rapid as the pulse. Here, with a pulse rate of 120, the respirations were 38; when the pulse fell to 110, the respirations were 40. The patient says that he felt an inclination to cough, not on account of the pain in his chest. The temperature to-day was 102 degrees, and last night it was 103 degrees.

The sputum is also quite characteristic. You can see that it is of a dull reddish-brown color and of the consistence of glue, stringing from the cup and receding without breaking when I attempt to stop the flow by tilting the cup. Such sputum is typically so tenacious that it will stick to the bottom of an inverted cup. This test, I am unable to show you, since we always keep some antiseptic liquid in the sputum cups.

We have had this winter in Buffalo an epidemic of influenza, comparatively mild, when we consider the severity of the epidemic in the winter of 1889-90, but not so mild as many of the patients might wish. The papers are full of the occurrence of grippe elsewhere. I believe that this patient had an attack of grippe

* Abstract from Medical and Surgical Reporter, Charles Cary, M. D., Buffalo, N. Y.

last week. Grippe is often followed by pneumonia unless the patient takes to his bed and receives proper treatment. The pneumococcus is almost always present in the mouth and it is largely a question of accident whether it remains as a harmless foreign body or whether it becomes implanted on the soil furnished by the inflammatory process of the influenza.

On percussing over the chest there is a great difference between the two sides. On the right side, the note is high-pitched, rather tympanitic and not voluminous. On the left side, the heart interferes with the resonance of the lung tissue so that the comparative difference is not as great as we might expect. There is not as much fremitus over the right lung as over the left. This is not typical, but we must take the physical signs as we find them. Sometimes, on account of pain, the diseased side will be held much more fixed than the other. Sometimes breathing with the diaphragm is less painful than if the intercostal and abdominal muscles are used, and, hence, the respiratory movement will be almost entirely limited to the diaphragm. This patient's respiration is largely abdominal, the chest scarcely rising at all. Over the lower lobe of the right lung there is loud tubular breathing, accompanied by a rather coarse rale, which is, however, of the nature of a crepitant rale. Day by day there will be a diminution in the tubular element of the breath sound. It is less to-day than yesterday. Still, we must consider the possibility of the invasion of another part of the lung, and, if this occurs—I sincerely hope that it will not—you can hear the pneumonic process in its most recent stage. The right lung is recovering so rapidly now that I think the man would be able to withstand the invasion of another part of the lung, even an entire lobe, if it were delayed a few days.

The general aspect of the patient shows that he is suffering from a serious infectious disease. Notice the characteristic nasal respiration, the alae nasi working with each respi-

ration, showing that a state of partial suffocation exists.

You will observe that the patient has been cupped; the ecchymotic spots appearing conspicuously, but not interfering with the conductivity of the sounds of the lung. I believe that derivative treatment, in the general sense of the word, is excellent. In addition to the use of dry cups, some other milder counter-irritant may be used, and mustard is a good and simple remedy. The bowels should be kept open by salines or a mercurial. It is common practice to give some ammonium preparation with the idea of making the sputum less viscid and capable of expulsion. I believe that opiates are indicated in this disease; not to a degree sufficient to narcotize and render the patient insensible of the need of oxygen, but sufficient to prevent the irritation of the centres on account of the pulmonary inflammation. We should, in general, prevent the excessive working of an inflamed organ. We would protect, involuntarily, any external organ that was involved in an acute inflammation, and I believe it is rational to limit as much as possible the working of the heart or respiratory apparatus under similar conditions of disability.

OXALIC ACID AS AN EMMENAGOGUE.

The emmenagogic effects of oxalic acid given in doses amounting to two grammes a day are very marked; but its disagreeable taste is a disadvantage. It may be made more acceptable thus:

Oxalic acid	2 grammes
Neutral glycerine	40 "
Syrup aurantii	60 "
Water	400 "

One-quarter of a glass every hour.

—Occidental Medical Times.

SULPHANILIC ACID IN ACUTE CATARRH.

Thirty to sixty grains of sulphanic acid, combined with a somewhat smaller amount of bicarbonate of soda, dissolved in water, may be given once or twice daily. The remedy is said to be rapid and efficacious in its action.

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DRY DRESSINGS.

We have formerly adverted to the ever-changing method employed in modern times in wound-treatment.

We remember the time when it was taught that for the covering of fresh wounds no balm was more efficient than one's own blood. The humble folk in sequestered sections of the country, beyond reach of medical aid or indisposed to pay for it, when a part was so wounded as to bleed freely hastened to some obscure corner of the domicile for cobwebs, which were believed to possess the dual power of hemostasis and healing.

During our late war we well remember the industry of the mothers and friends of soldiers in preparing charpie.

This dry-dressing was supposed to possess almost specific powers in healing wounds. Manufactured lints

came later. With antiseptics and Chassagnac's drainage-tube desiccated dressings were cast aside for irrigation, soaked gauze and frequent ablutions.

The quantity of water employed in all operations was enormous, and everything about was deluged with the incessant torrent. Now, a reaction has set in, and we are going back to the dry-dressings. This is no doubt a move in the right direction. It possesses many great advantages over the moist in healthy minds. Our patients are not exposed to the chilling effect of wet towels. There is a vast economy of materials, which is an important item when many operations are performed. Dry gauze is a most excellent hemostatic, and an absorbent of great value. In a large number of aseptic wounds, quite regardless of this area, skillfully and generously applied with one dressing only, we may not be obliged to remove it until repair is quite complete.

With infected wounds or those the seat of severe pain, simple or medicated fluids may be needed; when the virtues of hydropathy should be utilized according to well-known therapeutic principles.

ENDOMETRITIS.

Winckel (Wiener med. Woch., No. 27, 1895) discussed this disease at the June meeting of the German Gynecological Congress. Simple uterine catarrh usually results from distinct venous congestion. It frequently arises from this cause during infancy from improper clothing, especially tight bandaging of the body. Catarrh may also arise in childhood from want of cleanliness, irritation of the vulva and entrance of worms into the vagina. Anemia and other diseases of the blood cause catarrh in childhood. In adult life the causes of the same disease are innumerable. After bad burns, hemorrhagic endometritis is frequent. In acute infectious diseases this disease may arise either from entrance of the specific germ into the endometrium or from irritation of that membrane due to chemical products evol-

ed by the germ. Endometritis decidua polyposa results from retained relics of decidua after abortion and premature labor. In endometritis exfoliativa there is never any infiltration, as has been asserted. Between the shedding of one membrane and the development of the next there may not be the least trace of any discharge. Tuberculous endometritis is rare, the tube being more commonly the seat of tuberculous disease when it attacks the female genitals. Gonorrheal endometritis is very frequent, and Winckel contends that the gonococcus travels not only along the endometrium to the tubes, but also through the uterine wall to the peritoneum. Recent literature records no instance of true diphtheritic endometritis. The well-known septic puerperal type is chiefly set up by streptococcus pyogenes aureus. Purulent senile endometritis is saprophytic.

THE COMPLICATIONS OF VACCINATION.

Except in the thing which the anti-vaccinationist calls his "mind," the influence of vaccination in preventing or modifying small-pox is beyond a doubt; whether the present generation is wise in making use of it is a matter on which there may be more than one opinion. Looking upon the differences between small-pox now and small-pox one hundred years ago, and placing improvements in sanitation in their proper places, no one can deny that vaccination has deprived a loathsome disease of much of its horror. Personally, we look upon vaccination as the best means we have of fighting small-pox, and as a means which we should consequently make use of until we can discover a better. The supporters of both sides of the argument would do well to read a very excellent and complete study of the complications of vaccination by Dr. Louis Frank, of Milwaukee, which appeared in the *Journal of Cutaneous and Genito-Urinary Diseases*, for April, 1895. The conclusions at which Dr. Frank arrives are as follows, and we have

in some measure tabulated them for the sake of brevity and clearness: 1. That a study of ordinary anti-vaccinationist literature would lead one to think that leprosy, syphilis and paralysis are the only complications, whereas, as established by careful and unbiased observers, they occupy a most modest place in the list. 2. That the complications of vaccination are: (a) Those due to the virus itself, (b) those due to mixed inoculation, and (c) the sequelae of vaccination. Under the first heading come nine different eruptions, including dermatitis, vaccina herpetica, erythema and urticaria; none of these are particularly serious. 3. Of the complications due to mixed inoculation, the most common is erysipelas, while the most serious and most rare are tuberculosis, leprosy and syphilis. That the anti-vaccinationists make most noise over these particular affections and consider them to be relatively frequent. 4. Of tuberculosis communicated by vaccination, only three cases are on record, and these are of doubtful value. 5. With regard to leprosy, it is not to be denied that such inoculation may be possible, but it may be said that we have, at present, no clear and indisputable facts proving that leprosy has been spread by means of vaccination, but it is clearly established that it is effected by transference from the vaccinee to the vaccinifer, or from one vaccinee to another. Syphilis is never conveyed into the genus bovinum, consequently, it cannot affect the lymph from that class of animal. 7. The complications of vaccination are due to the use of human lymph, or to the use of impure lymph, or to imperfect methods of vaccination. If pure animal lymph and vaccine be used with care, no complications need arise; certainly, it is absolutely possible to prevent all serious ones.

TRIONAL AS A HYPNOTIC IN CHILDREN.

Trional is recommended as a safe and useful drug for the "night terrors" and sleeplessness of children.

Surgery.

IN CHARGE OF

DR. T. H. MANLEY, New York.

METALLIC SUTURES IN FRACTURE OF THE PATELLA.

In an article read before the Ontario Medical Association. Dr. J. J. Cassidy, described the following method of introducing the wire sutures in the operation for fractured patella: After the holes are drilled opposite each other in the fragments of the patella the silver wire is pushed down through one hole in the upper piece, and a flexible aluminum probe, with an eye in its point, is pushed through the opposite hole in the lower piece. When the silver wire appears in the gap between the two pieces it is caught in the eye of the probe, deftly twisted, and the probe is then drawn back through the hole in the lower piece, carrying the suture with it. If there should be any difficulty in pushing the silver wire through the hole in the upper fragment, it may be attached to the eye of the probe and pushed down to the gap, the probe is then detached from the wire, drawn back through the opening in the upper piece, introduced through the hole in the lower piece, reattached to the wire, and the operation finished as in the first instance.—Dominion Med. Monthly, June, 1895.

THE ILIAC-OVARIAN LIGAMENT.

M. Durant contributes an important and practical essay on this anatomical structure.—*Le Progres Medical*, 6 Juillet, '95. The ovary is attached to its posterior surface. It has been variously described, the author says, namely, by Henle, the "infundibulo pelviere;" Rouget, the round superior ligaments; Claudio, the appendiculo ovarian. According to Rouget it containsget it contains muscu-

lar fibres, and hence plays an important physiological role.

Hasse regarded it as a reduplication of the peritoneum, which united with the pavillion of the tube, externally with the ovary, and posteriorly with the abdominal wall. Its direction is nearly transverse. Schultze gives it a similar description, and says it takes a direction backward from the symphysis to the sacro-iliac junction. Rouget regarded it as a anusco-membranous cord, represented in the mammalia as a large, round ligament. It exists in both sexes; in the male as the urea envelope of the testes about to descend. In its descent is carried with it the vessels and elements of the cord.

It maintains throughout life intimate relations with the cecum and the structures of the spermatic cord, and hence is of considerable pathological importance in various types of inguinal hernia.

VISUAL TROUBLES FROM EMPYEMA OF THE FRONTAL-SINUS.

An empyema of the frontal-sinus attended with a bulging backward and downward of the orbital plate may be attended with unusual difficulties of diagnosis. If catheterism through the nares is practicable the way is easily cleared. This maneuver is extremely difficult in the normal state, but is more simple and effective when the sinus is distended.

Empyema of the frontal-sinus is sometimes a very serious lesion. Amaurosis and amblyopia are present in certain cases when the pus takes a backward direction and presses on the optic nerve as it enters the orbit. Pain is constant, the vesical field is narrowed and the disturbances of all the ocular functions are extreme. In all these cases we should first endeavor to drain through the nose by tubage; if this fails, then we must trephine, though we should avoid this if possible, as it leaves a scar.—G. G. Martin, *Annales de Med.*, 4 Juillet, '95.

INFLUENCE OF AGE AND SEX ON THE ABSORPTION OF CERTAIN MEDICAMENTS BY THE STOMACH.

All our physiologists have made their deductions from observations on the male in connection with the above question. It is interesting, however, to know what impress age, the menstrual epoch, pregnancy and menopause produce. One author made the observation in the hospital of Zemsvo, of Icheinighoff, with the assistance of Professor Ichvadowski. They examined none but those in health. Seventy-three females were subject to the tests; 49 were examined with regard to the influence of age on resorption; 16, the effect of pregnancy, and 8, the influence of menstruation. The medicaments used were salicylate of soda and iodide of potash.

They observed that absorption was most rapid in early childhood, and was most slackened in old age; it is variable during menstruation. Towards the end of menstruation the rapidity of absorption diminishes, then it increases and reaches its maximum just before the menstrual epoch. With the pregnant absorption was more rapid than in the non-pregnant.

The age of the pregnant and rapidity of resorption present was in inverse ratio. As pregnancy advances resorption is more accentuated. With the multipara resorption is greater than principara.—Taragola.

ON THE NATURE OF SYPHILITIC STRICTURES OF THE RECTUM.

BY M. M. HARTMANN, et Foupet.

The pathology of syphilitic contraction of the rectum is yet very obscure.

M. Fournier sustains the theory that there is an interstitial hyperplasia with a fibrous degeneration, while M. Duplay says that, however, we may view syphilis when it attacks the rectum it can be regarded as only playing an indirect role, as the contractions are always inflammatory, dependent on multiple in-

fluences in which no doubt syphilis occupies a prominent position.

These authors present a series of 21 cases; one by Juliusberger and two by Poelcheer, and while they allow syphilis a place as one of the etiological factors, tuberculosis is very often co-existent. Histologically, they always found at the lower border of the structure a change in the epithelium, which became puerile and stratified, with irregular papillomatous bodies, with a true pachyderma of the rectum.

Under the epithelial layer are diffused inflammatory lesions, tubercles, endarteritis or syphilitic periphlebitis.

The syphilitic infection keeps up a chronically inflamed surface through which the elements of infection readily pass, and this maintains a stenosed state of the bowels.

NEURALGIA OF THE POSTERIOR ROOT OF THE EIGHTH CERVICAL NERVE (INTRARACHIDIAN) OF THIS AND OTHERS IN CONTIGUITY—OPERATIVE AND FUNCTIONAL CURE.

BY M. M. CHIPAULT, et Dumonlin.
(Ann. de Med.)

A bank clerk aged 34 years commenced to have violent spasms of pain along the internal border of the middle and little fingers. Pain was always aggravated by contact with anything.

It resisted all ordinary treatment. From January until June he was unable to use his hand without pain.

Elongation of the dorsal branch of the cutaneous nerve, with section of the ulnar, in the epitrochlear groove, led to no improvement. The young man then in despair turned to morphine, in large doses, for relief. He came under the author's care in August, 1894. He was then pale, emaciated and weak. His thumb was flexed, as was also the forearm and ring-finger.

The muscles on the antero-lateral part of the forearm were marked by atrophy.

Now, after a careful examination, it was decided that the seat of trouble was at the root of the eighth cer-

vical. Accordingly the spine was trephined at the suspected site and the nerve root resected. (It is not stated whether an exostosis, a neoplasm or thickening of the nerve sheath was found.) Enough was recovered to insure anesthesia over the seat of neuralgia.

After operation there was no shock or vomiting. He could now hold a glass of water, write or move all his fingers without pain.

Four months after recovery was so complete that he could perform all his duties at the bank without inconvenience. His general health had immensely improved, and he had gained 48 pounds in weight.

This patient, then, did not suffer from neuralgia of the nerve, but a pseudo-neuralgia, radical in origin, as was evident from the delimitation of the hyperesthetic zone. The pathology of the pseudo-neuralgia, in the absence of all radicalism or medullary lesions, is difficult to determine.

NOTE BY TRANSLATOR.

This case is one of a highly interesting group, by no means rare, presenting neural phenomena with serious disturbances of the general health. They are invariably unilateral, only occur in the adult, very rare in the female, commonly associated with marked vascular disturbances; attacks are spasmodic, sometimes violent; some phases said to be cephalo-focal from the symptoms: Seldom or never attacks the lower extremities; the pathologic bases, probably, essentially the same as tic-douloureux. Modern surgery has essayed the radical cure of these dreadful neuralgias by peripheral or central neurectomies, sometimes with excellent results, though often amelioration is but transient; probably when combined with change of environment or occupation and a thorough course of internal medication a cure will never probably succeed.—T. H. M.

CASTRATION FOR HYSTERIA.

Gilles de la Tourette (*Archives de Tocol. et de Gynec.*, June, 1895) strongly opposes the practice of re-

moving the ovaries for hysteria. The modern idea that the ovary is the seat of that neurosis is as silly and mischievous as the ancient theory that hysteria arose from the womb. Clitoridectomy was odious and unscientific, but did not kill. 1872 was an evil year. Hegar and Battey both performed oophorectomy for hysterical dysmenorrhoea; Battey's case recovered. Hegar's patient dying "headed the long martyrology of hysterical patients condemned to castration and later to hysterectomy." Charcot especially condemns this unscientific and dangerous operation. He categorically denies the existence of a "genital hysteria;" he even declares that there is no such thing as hysteria, hysterio-epilepsy or epilepsy, "of menstrual origin." The catamenia are deranged as a result of the neurosis which they cannot cause. He has never seen a case where the operation could be justified. He has seen many where it had been performed, and the women remained hysterical as before. They had the extra worry caused by knowing that they had lost their ovaries which they could never get back again. Castration for hysteria in the female is as unjustifiable as it would be in the rare cases where hysteria with pain in the testes and scrotum exists in men.

OPERATIONS FOR CANCER.

Dr. Roux, of Lausanne, discussing this subject, remarks that the former teaching concerning constitutional cancer, the absence of antiseptics, and the fear of relapse discouraged the most intrepid surgeons from attempting on malignant tumors any but insignificant and palliative operations. From the characteristics of cancer he admits that it is a parasitic disease resembling tuberculosis in its clinical evolution; it is necessary, therefore, to attack it with the same energy and promptness as the latter affection. Too often we operate too late, when it is impossible to prevent a relapse. This fact filled the earlier statistics and continues to darken the present ones. As soon as the diagnosis is assured we should

intervene by the bloody method, always making a systematic and carefully detailed toilet of the ganglionic chain, even if it is healthy in appearance. That the principal cause of relapse is the late period at which we operate is proven by his personal observations upon three groups of cancer cases: those of the breast, the uterus and the gastro-intestinal tube. The operable cases of cancer of the stomach reached 12 per cent.; those inoperable, 88 per cent., a part of which were susceptible of palliative operation. The mortality from pylorotomy for cancer was from one-fifth to one-seventh; that from gastro-enterostomy, one-seventh. For cancer of the uterus there was 68 per cent. of the cases inoperable and 32 per cent. operable, only one-fourth of which were operable by the sacral method. The mortality from vaginal hysterectomy was 8 per cent., and from sacral hysterectomy, 11 per cent. As regards cancer of the breast, for which intervention is most easy, he counts twelve absolutely inoperable cases, while in more than 50 per cent. of the cases it was possible to predict an early and fatal relapse. The mortality reached 5 per cent.—that is to say, it was equivalent to the general mortality of all the operations. There is no doubt that early operations will prevent relapses, since in the deplorable conditions under which we now operate we actually have some cures. He cited at hazard cases of gastro-intestinal cancer without apparent relapse for three years; cancers of the rectum without relapse after four years; a cancer of the uterus, which had invaded the vesical walls; a vilous cancer of the kidney of extraordinarily difficult extirpation and without relapse for five years. He had removed the tongue in a case that had relapsed nine years after an operation performed by Dr. Kocher. Among his cases was one of survival for eleven years from cancerous goitre, and a cancer of the testicle that had not relapsed at the end of twelve years. Histological examination had left no doubt as to the nature of these tumors.—*Semaine Med.*

Medicine.

IN CHARGE OF

DR. E. W. BING, Chester, Pa.

ACUTE CORYZA IN NURSINGS.

It is not often that the acute rhinitis which nurslings occasionally suffer from, both in summer heat and winter cold, requires treatment; sometimes, however, it may, to some extent, prevent suckling, and remedial measures are required. Lewy, in such cases, advises the administration of terpin hydrate in doses of five centigrammes for children under one year, and double that amount for those above that age. For the prevention of eczema of the upper lip from the alkaline nasal mucous, vaseline, with which a little boric acid has been incorporated, should be used freely. When, as may happen, nasal obstruction from swelling of the nasal mucous membrane is so severe as to prevent nursing, it can be reduced either by swabbing with a five per cent. solution of cocaine, which requires constant attention, or by introducing into the nostrils cotton-wood cylinders dipped in one per cent. cocaine solution. In our own practice, however, we should not care to risk the use of cocaine with infants. In purulent rhinitis Lewy irrigates the nose with tepid water and insufflates with a powder containing one part of nitrate of silver to 20 of powdered talc or zinc stearate.—*Med., T. and H. G.*

A SIMPLE EXPEDIENT FOR THE TREATMENT OF NOCTURNAL ENURESIS.

Stumpf, in the *Munchener Med. Wochenschrift* for June 11, gives an account of a simple and apparently rational expedient which he has successfully adopted in the treatment of nocturnal enuresis, especially in older children. He was led to try it on the basis of the fact that the passage of even a few drops of urine through the sphincter vesice excites the action of the detrusor to such an extent that the call to urinate

becomes almost imperative. It is well known how difficult it is to restrain the act of urination after even a small amount of urine has passed the sphincter vesice and entered the urethra. His theory is that during sleep the sphincter of the bladder is apt to become relaxed, so that, as the child lies horizontally in bed, a little urine passes the sphincter and enters the deep urethra. The irritation of this urine causes at once strong reflex action of the detrusor, and the bladder at once emptied in a full, strong stream. It is a well-known fact that in nocturnal enuresis in children the urine does not leak away gradually, but the bladder is emptied at once, a point which is in support of this theory.

In order to prevent the passage of the urine into the urethra, when the sphincter becomes relaxed during sleep, a simple expedient is adopted, namely, the elevation of the pelvis, so that an accumulation of urine of ordinary amount in the bladder will gravitate back and distend the fundus, and not press against and tend to pass the sphincter. The elevation is secured by allowing the child only a single, small, flat pillow under the head, and placing one or two ordinary pillows under the thighs so that they lie at an angle of 130 to 150 degrees with the horizontal spine.

This simple expedient was entirely successful in curing two inveterate cases, one of a boy nine years, and one of a girl fifteen years old. It was then tried in twelve cases and was uniformly successful. It was usually necessary to continue the treatment for three weeks, after which time the children were able to return to their former sleeping position without relapsing.

THYROID TREATMENT OF GOITRE.

Professor Kocher, of Bern, has communicated to the *Correspondenzblatt für Schweizer Aerzte* his experience of the treatment of goitre by means of thyroid administration. The effect is unmistakable, he says, the swellings becoming distinctly

smaller. Symptoms of suffocation may be abolished by the treatment in consequence of the diminution in size of the goitre, but in no case did the swelling entirely disappear. Only in three cases was the treatment unsuccessful, and one of these was that of a large goitre in which success could scarcely be looked for; but in spite of this success Professor Kocher utters a warning against too sanguine views as to the success of thyroid treatment of goitre and expresses the opinion that this mode of treatment is not more efficacious than that by iodine. Success is only to be expected if the treatment is undertaken at the right time and is carried out with energy and patience.—Lancet.

EARLY DIAGNOSIS OF DIABETES.

Von Noorden (*Centralbl. f. inn. Med.*, May 25, 1895) draws attention to the early diagnosis of diabetes since treatment in the early stages offers considerable hopes of recovery. Treatment should be begun before the diagnosis is made by the discovery of sugar in the urine. The author has investigated the diagnostic value of alimentary glycosuria in such cases. In 15 adipose individuals no trace of sugar could be found when food containing much carbohydrate material was administered, but when pure grape sugar was taken glycosuria was noted in four cases. Two of these four cases have since developed diabetes, and the two other cases have not been under observation long enough. If subsequent investigation confirms these observations the test with grape sugar will be of considerable diagnostic value. It should be tried in the adipose and gouty, especially when a family history of diabetes is present. The author looks upon adiposity as frequently an early symptom of diabetes.

PAROXYSMAL HAEMOGLOBINURIA.

Chauffard, at the *Société Médicale des Hôpitaux* (Sem. Med., June 19), related a case of paroxysmal haemo-

globinuria from cold. Ehrlich's experiment was repeated, that is, blood was examined from the two hands, one having been exposed to the air, the other tightly ligatured at the wrist and exposed to iced water fifteen minutes. In the latter the serum was a pinkish cherry color, while in the former it was yellow. The clot did not redissolve in either case, as it should do in an attack of haemoglobinuria. This is explained by supposing that a central nervous disturbance is required in addition to exposure to cold for the production of a typical attack. The relation to the nervous system was shown by this case, for the exposure of the hand isolated by ligature to intense cold produced all the prodromal symptoms and premonitory albuminuria of a general attack. The mode of action and the path taken by the nervous reflex are uncertain, but that some nervous reflex is the starting point of the chemical process which results in an attack of haemoglobinuria seems clear.

BILIARY CIRRHOSIS IN CHILDREN.

Gilbert and Fournier (Rev. des Mal. de l'Enf., July, 1895) report seven cases of biliary cirrhosis in children, or commencing in childhood, and presenting all the symptoms observed in the adult, but with the addition, in many cases, of hypertrophy of the spleen, so conspicuous that in those cases in which the liver is not very much enlarged—and such enlargement is in children often not great—the true nature of the disorder may be easily mistaken. They believe this enlargement of the spleen in association with biliary cirrhosis to be peculiar to cases commencing in childhood. A further peculiarity of the disease, as observed in children, is the frequency with which clubbing of the fingers may be observed. In some instances the ends of the femur and tibia were enlarged also. Evidence of the influence of the disease on the general nutrition is to be detected also in the retarded growth and the backward appearance of the sufferers.

Gynecology and Obstetrics.

THE CONDITION OF THE PATELLAR REFLEX IN PREGNANT WOMEN.

Centralblatt für Gynäkologie.

Dr. Julius Newmann has recently investigated this hitherto unnoticed condition. He has made observations upon five hundred women, in most cases in pregnancy, labor and the puerperium. In most of the pregnant patients he found the knee-jerk exaggerated, but in some it remained normal up to the beginning of labor. Doubtless many circumstances (age, parity, presentation of fetus, etc.) had an influence on the state of the reflex. In parturient women with strong pains he found the patellar reflex regularly and quickly increased. It reached its highest point during the period of expulsion, and was often so much increased that it would have been regarded as pathological in other circumstances. On the third or fourth day of the puerperium the knee-jerk was often already normal.—Indiana Med. Gazette.

REPRODUCTION OF THE UTERINE MUCOUS MEMBRANE AFTER CURETTING.

Professor L. M. Bossi has made some interesting observations upon the rapidity with which the uterine mucosa grows again after it has been removed with the curette. In the case of two patients on whom hysterectomy was practiced, 25 and 28 days respectively after curettage, the uterine mucosa was found reproduced and histologically complete. In another case in which curetting was followed 15 days later by hysterectomy, the mucous membrane was found to be well formed, only showing here and there some areas in which the epithelium was deficient (cause unknown). In seven cases it was noted clinically that the uterine mucosa was capable of permitting

the development of the ovum upon it from 25 to 29 days after curettage. In each of these cases impregnation occurred and was followed by normal pregnancy and a labor at full term. From a series of experiments on dogs, it seemed that in them the reproduction of the uterine mucosa occupied a longer time than in the human subject; but Bossi was of opinion that the difference was due to the more complete and direct method of curettage in the former case (i. e., abdominal and uterine incision). In most cases in practice it is probable that the mucous membrane is only imperfectly removed, a fact which, perhaps, explains the tendency to the recurrence of pathological conditions in it. The author does not think that we are justified by the above observations in lessening the period of 60 days' sexual rest usually insisted upon after curetting.—*Edinburgh Med. Journal*, May, 1895.

VAGINAL OOPHORECTOMY.

The author advocates vaginal oophorectomy for the removal of small cystic prolapsed, painful or adherent ovaries or small tubal cysts or pus tubes, to the abdominal method, and claims the following advantages for the vaginal method:

- (1) Rapidity of operation—12-20 minutes.
- (2) Freedom from hernia.
- (3) Freedom from shock and vomiting.
- (4) Freedom from adhesions or intestinal injury.
- (5) Freedom from stitch abscess, causing long and tedious convalescence.
- (6) Natural drainage, preventing peritonitis.
- (7) The ease with which other operations upon the cervix and vagina may be done at the same time which so greatly aid in restoring the patient to health.

The author had a run of twenty cases of oophorectomy without a death.—*C. P. Thomas, M. D.*, in the *Journal of the Amer. Med. Asso.*

UTERINE GONORRHEA.

Wertheim (*Centralbl. f. Gynak.*, No. 26, 1895) believes that next to the urethra the uterus is the most common seat of gonorrhea. The germ sets up true acute interstitial endometritis; in chronic disease the glandular tissue of the endometrium is greatly increased. The muscular coat is often involved, and a kind of sclerosis of the vessels occurs; whilst the connective tissue undergoes hyperplasia at the cost of the muscle cells. Gonococci are usually to be found in the inflamed mucosa, yet sometimes they are entirely absent and they rarely, if ever, can be detected in the exudations in the muscular coat. The os internum offers no protection to the entrance of gonorrheal poison into the uterine cavity. The cervix is less involved and the disease is always least marked nearest the os externum. The puerperium is the most dangerous condition when gonorrhea exists in the genital tract lower than the uterus. Menstruation, coitus, and the sound are much less liable to expose the uterine cavity to gonorrheal infection.

WOUNDS OF VULVA FROM FALLING ASTRIDE.

Taffier and Levi (*Sem. Med.*, June 26, 1895) have prepared an instructive article on this subject illustrated by drawings of dissections of the vulvar relations when the subject is erect. The urethra is rarely injured. The bulb and surrounding venous plexuses are often torn and bleed very freely. Not rarely the skin and mucosa remain intact. Then a thrombus forms which may burst or harden, or suppurate or end by becoming a cyst. Skin wounds inflicted by a sharp object on which a woman falls astride seldom run from without inwards. More often the inner side of the vulva is wounded and the hard ramus of the ischium prevents retraction of soft parts, hence dangerous hemorrhage may occur. It is, however, generally venous. To check hemorrhages firm

pressure is unsuited on account of the extreme tenderness of the parts. Compression by antiseptic gauze is the best way to stop the bleeding. Indeed, as recurrence is very common, it is best always to compress a contused wound. The thighs must be tied together and a catheter retained or frequently passed.

Therapeutics.

IN CHARGE OF

DR. LOUIS LEWIS, Philadelphia.

Sulfinidum Absolutum is the name given to saccharin absolutely free from any para acid.

Cupratin is a combination of copper with albumen similar to ferratin made by Fihlene.

To Bronze Leather.—Dissolve one part of tannin in twenty parts of alcohol, and in this stir the bronze powder. Apply with a sponge or a brush.—Pharm. Zeit.

Ricinin, the cathartic principle of castor oil, can be extracted from castor cake by boiling with water, straining, evaporating to an extract, and exhausting with alcohol. The alcohol solution leaves on evaporation a resinous residue in which crystals of ricinin can be seen.

Argonin is a new silver compound, prepared by precipitating a solution of silver nitrate and casein-soda with alcohol. It is described as a fine white powder which dissolves in water with a neutral reaction. The silver in the compound is not precipitated by chlorides, ammonium sulphide, etc. Argonin is said to be especially efficacious in the treatment of gonorrhoea.

Crystallized Cinchonine is obtained by a French chemist by melting the neutral sulphate of cinchonine at 130 degrees C. and purifying the cinchonine by repeated crystallization from water in the form of oxalate. The solution of oxalate was treated with potash and the free base extracted by means of ether. Though soluble in benzine, toluene, acetone, chloroform and alcohol, cin-

chonine has not so far been crystallized from its solutions in those liquids.

Absorbable Animal Tissue for Covering Wounds.—J. Lustok has patented a process in Germany (D. R. P., No. 81,324), under which the muscular coating of the intestines of animals is divested of both the interior and exterior layers of mucous membrane, and then digested in a pepsin solution until the muscular fibres are half digested. This is then treated with tannin and with gallic acid. The result is a tissue which can take the place of the natural skin, and which, when laid on the wound, is entirely absorbed during the healing process.

The Red Coloration of Carbolio Acid.—W. von Hanco has investigated this subject and reports (Chem. Zeit.) his conclusions substantially as follows: The coloration is due to an oxidation, the rapidity and extent of which is dependent upon the joint action of certain atmospheric ammonia compounds, the metal of the container and the direct sunlight. On shaking reddened carbolio acid with zinc chloride a greenish color is developed through the action of the red coloring matter on the zinc salt. When powdered zinc chloride was added to the fused acid and the whole kept in small well-stoppered blue bottles no color developed. Carbolio acid packed in tin, in tinned iron, or in aluminium vessels is also free from the tendency toward coloration.

Salicylic Acid in Senega Root.—Rubner, having noticed that a certain sample of senega root had a distinct odor of gaultheria, attributed this to sophistication. In reply, however, Goldener shows that under certain conditions many plants of the natural order Polygalaceae afford methyl salicylate, and that, therefore, the supposed adulterant is a natural constituent of the root (Pharm. Zeit., Jahr. 40, No. 36, p. 300). C. Dunnenberger points out that the Swiss Pharmacopeia has adopted the detection of salicylic acid in the ether extract of senega root as a test of identity. Methyl salicylate is a normal constituent of the root, and

its detection by this test cannot be regarded as proof of fraudulent addition of oil of wintergreen, as has recently been asserted (Schw. Wochenschr., xxxiii, 197).—Phar. Jour. See also Amer. Drug and Pharm. Record, vol. xxv, 5, p. 176.

ARROWROOT IN AUSTRALIA.

In the directions for practical vegetable gardening (Agricultural Gazette of N. S. Wales), directions are given for growing arrowroot plants in the warmer parts of the colony for home use, both *Maranta arundinacea* and *bannaedulis* being recommended. If this arrowroot should ever become an article of exportation, it seems probable that it might be a mixed article. The writer in the Agricultural Gazette of New South Wales recommends that an old kerosene tin should be made into a grater for grating the roots. Arrowroot so made might, perhaps, suit for home manufacture, but from the experimental samples that have occasionally reached this country from other colonies, it is evident that much ignorance exists concerning the remarkable property that starch has of absorbing and retaining the odors of substances placed in contact with it, or even near it, and which is manifested when the arrowroot is used as food.—The National Board of Health Magazine.

GUAIACOL IN THE TREATMENT OF ORCHITIS.

Balzar and Lacour have communicated to the Hospitals Medical Society of Paris the results of their treatment of orchitis with guaiacol (Ann. de Derm. et. Syph.). Their attention was directed to this agent on account of its sedative and antithermic action. Pure guaiacol applied in the quantity of one gram, morning and evening, causes a somewhat marked smarting sensation which, in about ten minutes, becomes a simple sense of heat lasting for a couple

of hours; the pain is first relieved and then disappears completely, sleep becomes possible and the temperature falls to normal. Pure guaiacol often gives rise to erythema and desquamation of the scrotum; it is, therefore, advisable to use five or ten grams of the drug to thirty grams of vaselin. With this mixture the smarting is hardly noticeable, but the sensation of heat is the same as with the pure drug; the therapeutic effects, while somewhat less prompt, are equally satisfactory, pain is rapidly lessened, temperature lowered and sleep made possible. The ointment as a rule does not irritate the scrotum. The inunctions are made with three to five grams of the mixture, repeated twice daily, the scrotum being covered by a compress held by a T-bandage.

TREATMENT OF DILATATION OF THE STOMACH.

A. Matthieu (Rev. de Therap., No 8, 1895), discusses the treatment of this affection. When it depends upon an organic obstruction at the pylorus, a surgical operation is the only effectual remedy. Frequently, however, it is brought about by simple spasm of the valve. In such cases good results are obtained from the administration of warm drinks, which perhaps act directly upon the spasm; at any rate they allay the pain and lessen the irritation of the mucous membrane, of which spasm is the reflex consequence. With the same object alkalies may be given. When, again, dilatation is the result of atony of the muscular walls, there are several indications to fulfill. (1) The work of the organ must be curtailed by a suitable regimen, highly nutritious substances being given in a state of fine division and in small bulk. The meals, few in number, must be taken at longer intervals. Once or twice a week the contents of the stomach must be removed by the stomach-pump as late as possible after a meal. Too frequent washings-out must, however, be avoided, and a simple emptying of the organ

in often sufficient. Further, muscular action must be stimulated by such means as warm drinks, strychnine, ipecacuanha, alkalies, hydrotherapy, electricity, and massage. (2) Gastro-intestinal fermentation must be lessened. To this end washing-out of the stomach is chiefly to be relied on, the drugs usually given (naphthol, sodii salicylas, bismuthi salicylas, HCl, resorcin) being of secondary consequence. (3) Hyperacidity is to be combated by HCl; excess of this acid itself by alkalies. (4) Pain, if it does not yield to the above-mentioned treatment, will require chloroform water, cocaine or morphine. (5) Constipation is better remedied by enemata than by purgatives. (6) The general condition should be improved by suitable measures.

PIPTOCALYX MOOREI.

Further details concerning the history of this product have been furnished by Mr. J. H. Maiden in the *Agricultural Gazette*, of New South Wales. He first received the leaves in November, 1892, under the name of the "bitter vine," with the statement that a settler intended making a dye with it. It came from the Guy Fawkes district, over 400 miles north of Sydney, in the Snowy Range. It is stated to grow in the scrub to a height of fifteen feet up the trees, but in the open only to two or three feet. His correspondent remarked (April, 1892), Mr. —, whose people are dyers in England, is now collecting the leaves and sending them home for use in the business. A half-penny per pound is paid for picking them in the green state, and a handy man can pick about 150 pounds per day. The vines will only stand stripping every other year. Mr. Maiden also received the further information from Mr. S. Lamb that the plant in its wild state occurs only in belts within sharply defined limits. It appears to propagate chiefly from the root and from plants one year old, which send down white fibrous roots (rhizomes?) into the decayed leaves, which thickly cover the ground on which they lie and trail sometimes

to the length of several yards. In July, 1892, Mr. Lamb remarked that several dray-loads of the leaves had been sent to Kempsey for shipment during the season. It thus seems probable that the leaves were sent to Europe in the hope that they would be useful in dyeing, but that proving of no value for that purpose, another outlet was sought for them. —The National Board of Health Magazine.

GASTRIC ULCER TREATED BY SCRAPING AND DILATION OF THE PYLORUS.

Podres (*Centralbl. fur Chir.*, No. 15, 1895), holds that in cases of purely cicatricial affections of the pylorus, particularly when associated with extensive adhesions, better results can be obtained by Loreta's operation than by gastro-enterostomy. A case is reported of a man, aged 34, who, for two years had suffered from vomiting after meals, sharp pains in the region of the pylorus, and constipation. On performing laparotomy, the author found that the pylorus and duodenum were enclosed and bound down by extensive adhesions. On incising the front wall of the stomach, at a point about two and a half inches from the pylorus, he made out: (1) A circular ulcer, the base of which occupied a portion of the pylorus and a corresponding part of the smaller curvature, and (2) extensive cicatricial degeneration about the pylorus, so that only the tip of a pair of dressing forceps could be passed into the duodenal opening. This opening was gradually stretched by passing at first the forceps and afterwards one, and finally two fingers. The base of the gastric ulcer was then scraped with the fingernail and a sharp spoon. The wound in the stomach was closed with Lembert's sutures. The vomiting and pain ceased after this operation, and the patient speedily recovered; he regained appetite and was able to sleep well, and when last seen, five months later, had increased in weight.

Miscellany.

COLD BATHS IN PNEUMONIA.

The employment of cold baths for the treatment of pneumonia, and other febrile disorders of the respiratory apparatus, is much affected by a certain school of French practitioners. M. Comby recommends baths at a temperature varying between 68 and 77 degrees F., and affirms that in his experience children suffering from inflammation of the lungs invariably derive the greatest benefit from the procedure, the reaction being especially favorable as regards respiration and circulation. In his opinion quinine, antipyrine, and all the chemical antithermic remedies, are badly supported in this complaint, whereas the cold bath imparts strength and power of resistance to the system. MM. Sevestre, Rendu, Hayem, and Siredey, have brought about rapid defervescence in the pneumonia of adults, as well as children, by the use of the cold bath; and the last named gentleman has even employed the method with success in cases of broncho-pneumonia consecutive to the eruptive fevers. Commenting upon this new departure Dr. E. Masse very judiciously observes:

"Our patients will be slow to accept the treatment by cold baths in affections of the respiratory system. Seeing that pneumonia in young children generally pursues a favorable course, is it reasonable to apply such a process to cases that will recover without any treatment? In severe cases we will do well to think twice before having recourse to a system so little known amongst the public, because in the event of a fatal termination it will not fail to be blamed

therefor. I notice that this new fangled treatment has been often enough employed in hospitals, but the medical men who took part in the discussion at the Societe Medicale failed to say whether they were in the habit of having recourse to it systematically in their private practice.—Provincial Med. Jour.

A WARNING TO THE HERBIVOROUS.

Pedestrians fond of strolling through the fields where they are often in the habit of chewing the tender shoots of grass that they pick up on their way will be surprised to hear that the latter apparently most innocent indulgence is fraught with danger to the integrity of their epidermes. M. Poncet has assured the French Academy of Medicine that in the neighborhood of Lyons actinomycosis is quite a common complaint, and that he has succeeded in tracing it to the source we have just indicated. According to this eminent authority the grass munchers are liable to contamination through the fungus spores adhering to the blades of their provender. The parasite is afforded the unwonted chance of locating itself in a soil flowing, so to speak, with milk and honey, and promptly seizes thereupon, the maxillary region being its favorite site. The consequences of this invasion are sometimes very serious, leading to indurations and abscess, to say nothing of the disfigurement; but it is comforting to learn that the foe can be easily and completely routed out of his new quarters by a well directed bombardment with iodide of potassium.—Prov. Med. Jour.

A RARE ANOMALY.

M. Pean, the well-known French surgeon, lately performed a successful operation on a young girl who suffered from incontinence of urine, caused by the presence in her vagina of a supernumerary bladder and ure-

thra. Cases of this description are extremely rare, and where they do occur it is rarer still to find them entirely amenable to art. In this instance the cure is said to be complete.—*Provincial Med. Jour.*

THE PERILS OF ACROBATISM.

Clowns and contortionists are not a long lived class. Not only do they strain nature unduly in the exercise of their avocations, they also, as a rule, demand too much from their digestive and excretory organs in the matter of alcohol. Professor Quenu recently cured a clown of two aneurisms by extirpation, one being situated on the right iliac artery, and the other on the left femoral. In the first case the external iliac artery had been tied above the tumor as a preliminary measure, as well as the profunda, the muscular, and the circumflex iliac below. In the second not only were the same vessels ligatured both above and below, the femoral vein was also resected for a considerable portion of its course. The clown recovered, but had to abandon acrobaticism.—*Provincial Med. Jour.*

THERAPEUTIC HINTS.

From Practical Medicine.

Iodol is successfully used in eczema of the external meatus.

Creolin is recommended as a superior antiseptic for obstetric use.

Glycerin of alum in the syrup of mulberries is a useful and grateful application in pharyngitis of children.

It is said that one-tenth of a grain of apomorphia, hypodermically, will break up and thereafter prevent an attack of hysteria.

For hemoptysis, if the heart be sound, give from one and-a-half to two and-a-half grains of chloral per rectum.

Early applications of strong solutions of nitrate of silver are recommended for bed sores.

The monobromate of camphor is

said to be a specific in the reflex nervous irritation due to dentition.

Nocturnal attacks of asthma may be prevented by giving small hypodermic doses of strychnia and atropia combined.

The Medical Press reports a case of recovery after one ounce of chloral hydrate had been taken.

A new salt of antipyrin, mandelate of, has been discovered, which has all the properties of antipyrin without being poisonous.

A case has been recently reported where three fluid drachms of the tincture of digitalis were taken and retained, and the patient recovered.

Iodide of potassium, added to ammonium chloride cough mixtures, increases the secretion and relieves the hard cough in subacute bronchitis.

SALICYCLIC ACID EXTERNALLY IN RHEUMATISM.

Dr. Kinnicutt reported at a meeting of the Practitioners' Society upon the use of salicylic acid by inunction in cases of acute articular rheumatism. The formula used by him was that of Bourget, viz., salicylic acid ten parts, lanolin ten parts, lard one hundred parts. Two drachms of the pomade were rubbed into several areas on the trunk and extremities every four hours, the total daily inunctions representing sixty grains of salicylic acid. The absorption was very rapid, requiring no more than ten minutes for the single inunction, and it was unattended with any irritation of the skin. No covering was employed. The inunction of two drachms of the pomade, representing ten grains of the acid, permitted the discovery of the latter in the urine, at the end of four hours. It had proved to be an efficient method of introducing salicylic acid into the economy, and of the treatment of acute articular rheumatism. It possessed the advantage of not producing disturbances of digestion.—*N. Y. Med. Record.*

The plague has made its appearance in Foo Chow, China. There is no pretense of sanitation in that city,

so the epidemic will probably continue until the soil has been exhausted.

The wines of the German Fruit Company, of Los Angeles, Cal., are of an excellent quality for medicinal purposes and exceptionally cheap. By writing them an advantageous description can be had of the various brands under their manufacture.

THE RESUSCITATION OF STILL-BORN INFANTS.

(Bedford Brown, American Journal Medical Sciences.)—During the past three or four years, in several cases of this kind, apparently under the most hopeless circumstances, when all other standard methods had failed, he has resorted to hypodermatic injections of brandy or whisky with the most satisfactory results. The amount used is five or six drops in first one arm and then in the other, 15 drops being the largest quantity used in a single case. If the mother has suffered alarming ante-partum hemorrhage, and the infant has been drained of blood before its birth, this method can avail nothing.—Medical Fortnightly.

NEPHROPEXY BY TENDON.

At the May meeting of the Societe Nationale de Medecin de Lyon, M. Pouillet presented the case of a woman upon whom he had successfully performed the operation of nephropexy by means of a tendon of the longissimus dorsi muscle, the upper end of which was detached from its muscular belly, and passed so as to make a loop, through the posterior part of the capsule of the kidney, supporting the organ and holding it in place. This ingenious method is probably the first one devised for fixation of an abdominal organ by what may be called a living suture, as one end of the tendon is not freed from its attachment. The operation was first successfully performed upon a dog, and later on the human subject.

Prescriptions.

Pityriasis Versicolor.—

R—Cold cream 1¼ oz.
Unwashed precipitated sulphur. 1 dr.
Iodide of sulphur..... ½ dr.
Red oxide of mercury..... 15½ gr.

Rub in well three times daily, then dust with a powder made of talc and starch. Mouvement Ther. et Med.

Coryza.—Dr. Godfrey recommends the following spray in coryza, hay fever, etc.:—

R—Acidi tannici,
Acidi boraci aa. 10 gr.
Cocainæ hydrochloratis..... 2½ gr.
Aque ad. 1 oz.

It should always be kept in mind, however, that the nasal mucous membrane stands astringents badly. —N. Y. Med. Record.

Migraine.—

R—Butyl-chloral hydrat..... 15 gr.
Tinct. gelsem. semper..... 30 m.
Tinct. cannabis Ind..... 15 m.
Glycerin ½ oz.
Aquam q. s. ad. 3 oz.

M. Sig.—A third part to be taken at once. The dose to be repeated in half an hour.—Practitioner.

Warts.—Professor Kaposi, in multiple warts of the face, employs the following application:—

R—Sulphur 20 parts
Glycerine 50 parts
Pure con. acetic acid..... 10 parts

Apply locally to each wart.

Or this powder may be employed:—

R—Calomel 30 parts
Boric acid 15 parts
Salicylic acid 5 parts
Cinnabar 3 parts

Rub into the wart two or three times a day.

External Application of Guaiacol.—Dr. Sigalea reports that the absorption of pleural effusions is promoted by painting upon the surface the following preparation:—

R—Guaiacol. 45 gr.
Glycerin.
Tr. iodi aa 5 dr.

M.—The application is made once daily for several days. Dr. Sigalea adds that he has successfully made use of the same application to the lumbar region in cases of scarlatinal nephritis with anasarca and anuria.—Le Progres Medical.